



## Lab technology to prevent criminal activity

*by Fran Crumb, Information Directorate*

ROME, N.Y. — “Stone walls do not a prison make ...” Richard Lovelace wrote. And the 17th-century English poet never even saw a pay phone on the wall of a cellblock.

Researchers for the Air Force Research Laboratory Information Directorate, along with a team of contractors, have successfully completed a study for the National Institute of Justice (NIJ) and the Bureau of Prisons (BOP) to develop a plan that applies advanced voice processing technology to reducing inmate telephone criminal activity.

Previous studies had concluded that prisoners are using telephones on a large scale to continue illegal activity that is both dangerous and expensive to the public.

The AFRL study developed methods to reduce inmate crimes, such as harassment, drug solicitation and credit card fraud using existing automatic voice processing technology. The technology has the potential to save hundreds of millions of dollars in telephone monitoring costs over current methods used to monitor the more than 100,000 calls made each day by inmates at federal prisons alone.

“This was primarily a study looking at existing technology and new applications of that technology,” said Dr. Stanley J. Wenndt, research engineer in the directorate’s Information and Intelligence Exploitation Division.

“Some areas identified included speaker verification to ensure the right inmate using the right personal identification number – or PIN,” Wenndt said.

Additional voice processing technology that can be applied to monitoring prison communications includes “whisper detection,” since whispered speech is an indicator of possible illicit activity. Existing technology can also automatically detect the use of long lists of digits on a phone, indicating a prisoner is using credits cards for some purpose.

A follow-on effort for the NIJ and BOP to demonstrate the use of voice technology for automatic telephone monitoring is currently being planned. @